In the claims:

Please amend as follows: Cancel claims 2-8, 10, 14-20, 23, 24, 30 and 32-34. Added text is underlined and deleted text is struck through or double bracketed.

1-8. (cancelled)

9. (currently amended) A communication network arrangement ~~according to claim 8, wherein the at least one core node comprises,~~ for handling packets within optical or combined optical/electrical packet switched networks, the communication network arrangement comprising:

means for dividing packets within the network by first and second QoS classes;

means for transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the second QoS in a second state of polarization;

an ingress node; and

at least one core node, said core node having:

at least one polarisation beam splitter (PBS1),

two optical demultiplexers,

at least one first wavelength converter,

a second wavelength router, and

at least one third fixed wavelength converter adapted to forward packets of the first and second QoS class to a first optical multiplexer.

10. (cancelled)

11. (currently amended) A communication network arrangement ~~according to claim 8, characterized in that the ingress node~~ for handling packets within optical or combined optical/electrical packet switched networks comprising:

means for dividing packets within the network by first and second QoS classes;

means for transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the second QoS in a second state of polarization;

an ingress node, wherein said ingress node:

has means for separating header and payload for BE-packets by state of polarisation, and

has means for separating packets by changing state of polarisation at the beginning of every new packet, using at least one polarisation beam splitter (PBS) adapted to receive a WDM-signal with a plurality of wavelengths and wherein the polarisation beam splitter (PBS) is adapted to separate header and payload by using the polarisation beam splitter per wavelength; and

at least one core node, said core node having at least one polarisation beam splitter (PBS1) and at least one optical demultiplexer.

12. (cancelled)

13. (currently amended) A communication network arrangement ~~according to claim 8, characterized in that~~ for handling packets within optical or combined optical/electrical packet switched networks, the communication network arrangement comprising:

means for dividing packets within the network by first and second QoS classes;

means for transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the

second QoS in a second state of polarization;

an ingress node; and

at least one core node, said core node having at least one polarisation beam splitter (PBS1) and at least one optical demultiplexer, wherein the ingress node and the at least one core node comprises an optical packet switched module attached to a S-WRON node.

14-21. (cancelled)

22. (currently amended) A method ~~according to claim 18,~~ for handling packets within optical or combined optical/electrical packet switched networks comprising at least an ingress node for multiplexing of optical packets by polarization, comprising:

dividing packets of the ingress node as first and second QoS classes of packets, and

transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the second QoS in a second state of polarization, by either interleaving packets of the second QoS class of packets with packets of the first QoS class or by simultaneously transmitting packets of a first QoS class in a first state of polarization and transmitting packets of a second QoS class in a second state of polarization, the states of polarization being substantially orthogonal, wherein the network further has at least one core node that executes at least one of the following steps:

a) demultiplexing received traffic by polarisation,

b) polarizing the received traffic, and

c) SOP-aligning received traffic.

23-24. (cancelled)

25. (currently amended) A method ~~according to claim 20, characterized in that at~~ for handling packets within optical or combined optical/electrical packet switched networks comprising at least an ingress node for multiplexing of optical packets by polarization, an ingress node for demultiplexing of received optical packets by polarization, and at least one core node, comprising:

dividing packets of the ingress node as first and second QoS classes of packets, and

transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the second QoS in a second state of polarization, by either interleaving packets of the second QoS class of packets with packets of the first QoS class or by simultaneously transmitting packets of a first QoS class in a first state of polarization and transmitting packets of a second QoS class in a second state of polarization, the states of polarization being substantially orthogonal; and

interchanging said first and said second states of polarization at the beginning of each packet, wherein the at least one core node ~~in the optical packet switched network is executing~~ executes time divisional multiplexing of received packets.

26. (currently amended) ~~A method according to~~ The method of claim 22, ~~characterized in that~~ wherein at least one core node in the optical packet switched network is SOP-realigning received packets.

27. (currently amended) ~~A method according to~~ The method of claim 22, ~~characterized in that~~ wherein when a first packet of a first QoS class arrives at a switch the following steps are carried out:

a controlling device registering that the first packet is present at the input,

then delaying the first packet in a FDL in a first pre-determined period of time, ~~and~~

reserving an output where the first packet is directed to be transmitted, and

communicating the first packet exiting a FDL to [[an]] a reserved vacant output.

28. (currently amended) ~~A method according to~~ The method of claim 27, ~~characterized in~~ further comprising defining the first predefined period of time to be longer than a second period of time, and defining the second period of time using a packet with a lower QoS level than the first packet where the second packet is of a maximum allowed size.

29. (currently amended) A method ~~according to claim 21, characterized in that~~ for handling packets within optical or combined optical/electrical packet switched networks comprising at least an ingress node for multiplexing of optical packets by polarization and an egress node for demultiplexing of received optical packets by polarization, comprising:

dividing packets of the ingress node as first and second QoS classes of packets, and

transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the second QoS in a second state of polarization, wherein the second and first state of polarization are substantially orthogonal states, by either interleaving packets of the second QoS class

of packets with packets of the first QoS class or by simultaneously transmitting packets of a first QoS class in a first state of polarization and transmitting packets of a second QoS class in a second state of polarization, the states of polarization being substantially orthogonal, wherein statistically multiplexed packets of the second QoS class [[is]] are interleaved with packets of the first QoS class, and wherein the packets of the first QoS class ~~using~~ use a predefined wavelength path within a communication network.

30. (cancelled)

31. (currently amended) A method ~~according to claim 30, characterized in~~ for handling packets within optical or combined optical/electrical packet switched networks comprising at least an ingress node for multiplexing of optical packets by polarization and an egress node for demultiplexing of received optical packets by polarization, comprising:

dividing packets of the ingress node as first and second QoS classes of packets;

transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the second QoS in a second state of polarization, by either interleaving packets of the second QoS class of packets with packets of the first QoS class or by simultaneously transmitting packets of a first QoS class in a first state of polarization and transmitting packets of a second QoS class in a second state of polarization, the states of polarization being substantially orthogronal;

assigning the first QoS class to GS-packets and assigning the second QoS class to BE-packets; and

forwarding GS-packets optically using an optical switch and forwarding BE-packets electronically using an electronic switch.

32-34. (cancelled)

35. (new) A communication network arrangement for handling packets within optical or combined optical/electrical packet switched networks comprising:

means for dividing packets within the network by first and second QoS classes;

means for transmitting packets of the first QoS class in a first state of polarization and transmitting packets of the second QoS in a second state of polarization;

an ingress node, wherein said ingress node:

has means for separating header and payload for BE-packets by state of polarisation, and

has means for separating packets by changing state of polarisation at the beginning of every new packet, using at least one polarisation beam splitter and at least one optical demultiplexer adapted to receive a WDM-signal with a plurality of wavelengths, wherein the ingress node is adapted to separate header and payload by using the polarisation beam splitter per wavelength; and

at least one core node, said core node having at least one polarisation beam splitter and at least one optical demultiplexer.